

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1. (currently amended): An as-grown single crystal of alkaline earth metal fluoride produced by a single crystal pulling method and having a straight barrel part diameter of not less than 17 cm and a light transmittance, as measured at a wavelength of 632.8 nm, of not less than 80%, wherein the as-grown crystal is non-annealed.

2. (previously presented): The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 1, wherein the main crystal growth plane is the {111}plane.

3. (previously presented): The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 1, wherein the main crystal growth plane is the {100}plane.

4. (previously presented): The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 1, wherein the straight barrel part has a length of not less than 5 cm.

5. (previously presented): The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 1, wherein the alkaline earth metal fluoride is calcium fluoride.

6. (previously presented): The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 1, wherein the alkaline earth metal fluoride is barium fluoride.

7. (previously presented): The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 2, wherein the straight barrel part has a length of not less than 5 cm.

8. (previously presented): The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 3, wherein the straight barrel part has a length of not less than 5 cm.

9. (previously presented): The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 2, wherein the alkaline earth metal fluoride is calcium fluoride.

10. (previously presented): The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 3, wherein the alkaline earth metal fluoride is calcium fluoride.

11. (previously presented): The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 4, wherein the alkaline earth metal fluoride is calcium fluoride.

12. (previously presented): The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 2, wherein the alkaline earth metal fluoride is barium fluoride.

13. (previously presented): The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 3, wherein the alkaline earth metal fluoride is barium fluoride.

14. (previously presented): The as-grown single crystal of alkaline earth metal fluoride as claimed in claim 4, wherein the alkaline earth metal fluoride is barium fluoride.